AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in this application. Added matter is indicated by underlining and deleted matter is indicated by strikethroughs or double brackets ([[]]).

1. (Currently Amended) An ophthalmic surgical method, ~~Method for prevention of capsular opacification,~~ comprising:

a) creating an opening in a lens capsule of an eye;

b) removing the natural lens from the lens capsule;

c) inserting a capsule filling implant comprising an injectable material into the lens capsule; and

d) injecting a composition into a [[the]]space between the inserted capsule filling implant and the lens capsule using an instrument having a hydrophobic outer surface such that the composition reaches a germinative zone of the capsular bag;

in which method the composition injected in step d) comprises at least one agent capable of inhibiting at least one of the following:

proliferation of lens epithelial cells;

migration of lens epithelial cells; and

production of extra-cellular matrix by lens epithelial cells.

2. (Currently Amended) Method according to claim 1, in which step d) is performed in such a way that the composition injected is selectively applied to the germinative zones of epithelial cells~~, and in such a way that the central parts of the anterior and posterior surfaces of the lens capsule are kept essentially free from the composition~~.

3. (Original) Method according to claim 1, in which step d) is performed in such a way that the composition injected is applied to the whole of the inside of the lens capsule.

4. (Cancelled) .

5. (Currently Amended) Method according to claim 1~~ claim 4~~, in which said instrument is a steel cannula with a hydrophobic coating.

6. (Currently Amended) Method according to claim 1 ~~claim 4~~, in which said instrument is made from a hydrophobic material.

7. (Original) Method according to claim 1, in which the size of the opening created in step a) is below 3 mm.

8. (Original) Method according to claim 7, in which the size of the opening created in step a) is from 0.8 to 1.5 mm.

9. (Original) Method according to claim 1, which further comprises sealing the opening in the lens capsule.

10. (Original) Method according to claim 9, in which said sealing is performed through insertion of a sealing device in the opening before step d), which sealing device permits entry into, and withdrawal from, the lens capsule of instruments for manipulation and/or injection.

11. (Original) Method according to claim 1, in which the capsule filling implant is an artificial lens.

12. (Cancelled)

13. (Currently Amended) Method according to claim 1, in which the ~~capsule filling implant comprises an~~ injectable material~~, which~~ is capable of undergoing cross-linking to form a lens implant following injection thereof into the lens capsule.

14. (Original) Method according to claim 1, in which the at least one agent is present in a physiologically acceptable solution.

15. (Original) Method according to claim 1, in which the at least one agent is present in a physiologically isotonic solution.

16. (Original) Method according to claim 1, in which the at least one agent is present in a hypotonic solution.

17. (Original) Method according to claim 1, in which the at least one agent is present in a hypertonic solution.

18. (Original) Method according to claim 1, in which the composition comprises a cytotoxic agent.

19. (Original) Method according to claim 18, in which the cytotoxic agent is selected from the group consisting of saporin, ricin, methotrexate, 5-fluorouracil, daunomycin, doxorubicin, mitoxanthrone, vinca alkaloids, vinblastine, colchicine, cytochasins, monensin, mitomycin and ouabain.

20. (Currently Amended) Method according to claim 1, in which the composition comprises a nucleic acid molecule comprising a gene encoding a protein capable of inducing the death of lens epithelial cells, the gene being [[bing]]subject to transcriptional control specific to said cells.

21. (Original) Method according to claim 20, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is selected from the group consisting of genes encoding a protein which induces cell death by necrosis and genes encoding a protein which is toxic to lens epithelial cells.

22. (Original) Method according to claim 21, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is a gene encoding a protein which induces apoptosis, or a gene involved in the process of apoptosis.

23. (Original) Method according to claim 20, in which said gene encoding a protein capable of inducing the death of lens epithelial cells is selected from the group consisting of genes encoding p53, BAX, FLICE, TRAIL and TRAIL-R.

24. (Original) Method according to claim 20, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is provided within a vector.

25. (Original) Method according to claim 24, in which said vector is of the adenovirus type.

26. (Original) Method according to claim 1, in which the composition comprises at least one basement membrane binding agent, which is conjugated to at least one cytotoxic agent.

27. (Original) Method according to claim 26, in which the at least one cytotoxic agent is selected from the group consisting of ribosomal inhibitory proteins, antimitotic drugs and ionophores.

28. (Original) Method according to claim 27, in which the at least one cytotoxic agent is a ribosomal inhibitory protein.

29. (Currently Amended) Method according to claim 26, in which the at least one basement membrane binding agent is selected from the group consisting of poly-L-lysine, poly-D-lysine, fibronectin, laminin, type I collagen, type II collagen, type III collagen, type IV collagen, ~~type I, II, III and IV collagen~~, thrombospondin, vitronectin, polyarginine and platelet factor IV.

30. (Original) Method according to claim 29, in which the at least one basement membrane binding agent is poly-L-lysine or poly-D-lysine.

31. (Original) Method according to claim 1, in which the composition comprises a surfactant.

32. (Cancelled).

33. (Cancelled).

34. (Currently Amended) Method according to claim 1, in which the composition further comprises a divalent cation chelator.

35. (Currently Amended) Method according to claim 1, in which the composition further comprises an arginine-glycine-asparagine (RGID) peptide analog.

36. (Currently Amended) Method according to claim 1, in which the composition further comprises an antibody directed against cell attachment receptors.

37. (Cancelled).

38. (Original) Method according to claim 21, in which said gene encoding a protein capable of inducing the death of lens epithelial cells is selected from the group consisting of genes encoding p53, BAX, FLICE, TRAIL and TRAIL-R.

39. (Original) Method according to claim 22, in which said gene encoding a protein capable of inducing the death of lens epithelial cells is selected from the group consisting of genes encoding p53, BAX, FLICE, TRAIL and TRAIL-R.

40. (Original) Method according to claim 21, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is provided within a vector.

41. (Original) Method according to claim 22, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is provided within a vector.

42. (Currently Amended) Method according to claim 27, in which the at least one basement membrane binding agent is selected from the group consisting of poly-L-lysine, poly-D-lysine, fibronectin, laminin, type I collagen, type II collagen, type III collagen, type IV collagen, ~~type I, II, III and IV collagen~~, thrombospondin, vitronectin, polyarginine and platelet factor IV.

43. (Currently Amended) Method according to claim 28, in which the at least one basement membrane binding agent is selected from the group consisting of poly-L-lysine, poly-D-lysine, fibronectin, laminin, type I collagen, type II collagen, type III collagen, type IV collagen, ~~type I, II, III and IV collagen~~, thrombospondin, vitronectin, polyarginine and platelet factor IV.

44. (New) Method according to claim 1, further comprising keeping the composition in place for as long as the composition is active.

45. (New) Method according to claim 2, in which step d) is performed in such a way that central parts of anterior and posterior surfaces inside the lens capsule are kept essentially free from the composition.

46. (New) An ophthalmic surgical method, comprising:

a) creating an opening in a lens capsule of an eye;

b) removing the natural lens from the lens capsule;

c) inserting a capsule filling implant into the lens capsule; and

d) injecting a composition into the space between the inserted capsule filling implant and the lens capsule using an instrument having a hydrophobic outer surface such that the composition reaches a germinative zone of the capsular bag.

47. (New) Method according to claim 46, further comprising keeping the composition in place for as long as the composition is active.